What is Claimed is:

[c1] A method of operating a content distribution network switch in a content distribution network comprising the steps of:

receiving a packet from a client associated with a secure communication connection;

extracting information from the packet to identify a cache server in the content distribution network that has state information on the secure communication connection; and

directing the packet towards the identified cache server.

[c2] The invention of claim 1 wherein the information extracted from the packet comprises a session identifier used to compute a label identifying the cache server.

[c3] The invention of claim 2 wherein the label identifying the cache server is computed from the session identifier by a function f(SID) where SID is the session identifier.

[c4] The invention of claim 3 wherein the function f(SID) = SID MOD n + 1 where n is the number of cache servers that can store the state information on the secure communication connection.

[c5] The invention of claim 4 wherein the secure communication connection is a Secure Sockets Layer connection.

[c6] The invention of claim 1 wherein the information extracted from the packet comprises a client address which is associated with a cache server.

[c7] The invention of claim 6 wherein associations between client address and cache server are stored in a table.

[c8] The invention of claim 7 wherein the secure communication connection is a Secure Sockets Layer connection.

[c9] The invention of claim 6 wherein associations between client address and cache server are generated by a hash function.

[c10] The invention of claim 9 wherein the secure communication connection is a Secure Sockets Layer connection.

[c11] A method of operating a cache server in a content distribution network comprising the steps of:

selecting a session identifier that may be utilized by a content distribution network switch to direct packets associated with a secure communication connection to the cache server; and
negotiating a secure communication connection with a client.

[c12] The invention of claim 11 wherein the session identifier can be used to compute a label identifying the cache server using a function f(SID) where SID is the session identifier.

[c13] The invention of claim 12 wherein the function f(SID) = SID MOD n + 1 where n is the number of cache servers that can store the state information on the secure communication connection.

[c14] The invention of claim 13 wherein the secure communication connection is a Secure Sockets Layer connection.

[c15] A method of operating a cache server in a content distribution network comprising the steps of:

negotiating a secure communication connection with a client;
creating state information necessary for reuse of the secure communication connection with the client;
sharing the state information with other cache servers in the content distribution network to which client requests may be redirected.

[c16] The invention of claim 15 wherein the secure communication connection is a Secure Sockets Layer connection.